§ 1.116 Amendment 10/630,778 (60000500-1012)

Page 2

In the Claims:

15:00

- 1-4. (canceled)
- 5. (currently amended) A near hermetic The microwave semiconductor device comprising:
 - a substrate;
 - a Monolithio Microwave Integrated Circuit (MMIC) disposed on said-substrate;
 - a sealant disposed on said MMIC comprising a layer of silicon carbide; and
- a Backside Interconnect connecting said substrate to said scalant coated MMIC, including according to claim 30, wherein said backside interconnect includes plated-through vias disposed in said MMIC extending between opposite faces of said MMIC, and tying to terminals on said substrate.
 - 6. (canceled)
 - 7. (canceled)
- 8. (currently amended) The microwave semiconductor device according to claim [[5]] 30, wherein the device is substantially free of bond wires and solder balls.
- 9. (currently amended) The microwave semiconductor device according to claim [[1]] 30, further comprising a plurality of rest vias connecting the MMIC to a bottom ground plane of the substrate.
 - 10. (canceled)
- 11. (currently amended) The microwave semiconductor device according to claim [[10]] 32, wherein the said solder attachment is formed using AuSn solder.
 - 12. (canceled)

§ 1.116 Amendment 10/630,778 (60000500-1012)

Page 3

13. (currently amended) The microwave semiconductor device according to claim [[12]] 33, further comprising a cover disposed over said conformal-coated MMIC in a non-contacting manner.

14-17. (canceled)

18. (currently amended) The near-hermetic microwave semiconductor device according to claim [[17]] 30, wherein the device is substantially free of solder balls and bond pads and said coating is a low dielectric having a dielectric constant suitable for operating at an operational frequency between about 2 GHz and about 10 GHz.

19-26. (canceled)

- 27. (currently amended) The microwave semiconductor device according to claim [[6]] 30, wherein said substrate is a PWB suitable for ultrahigh frequency applications.
- 28. (previously presented) The microwave semiconductor device according to claim 27, wherein said ultrahigh frequency applications include Phased Array Antenna (PAA) systems.
- 29. (previously presented) The microwave semiconductor device according to claim 27, wherein said substrate is formed of one of a liquid crystal polymer (LCP) and a ceramic.
- 30. (currently amended) The A near-hermetic microwave semiconductor device according to claim 6, wherein comprising:

a substrate;

- a Monolithic Microwave Integrated Circuit (MMIC) disposed on said substrate;
- a sealant disposed on said MMIC and over benzocyclobutene (BCB) as an interlayer dielectric, said sealant comprises comprising a layer of silicon carbide; and

§ 1.116 Amendment 10/630,778 (60000500-1012)

15:00

Page 4

- a backside interconnect extending between opposite faces of said MMIC and connecting said substrate to said sealant-coated MMIC.
- 31. (currently amended) The microwave semiconductor device according to claim [[6]] 30, wherein said MMIC is a GaAs MMIC.
- 32. (currently amended) The microwave semiconductor device according to claim [[6]] 30, further comprising a solder attachment along a periphery of said MMIC, to seal said MMIC to said substrate.
- 33. (currently amended) The microwave semiconductor device according to claim [[6]] 30, further comprising a conformal coating disposed on said sealant.
- 34. (currently amended) The microwave semiconductor device according to claim [[6]] 30, further comprising a cover disposed on said MMIC.